

<b>Title</b>	<b>Control and trial the extrusion blow moulding process for a simple extrusion blow mould</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: control a production run for the extrusion blow moulding process using a simple extrusion blow mould; trial a simple mould or process in a specified extrusion blow moulding machine; and start up the moulding process for an initial production run of the trialled mould.
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<b>Classification</b>	Plastics Processing Technology > Extrusion Blow Moulding
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<b>Available grade</b>	Achieved
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**Explanatory notes**

- 1 Legislation relevant to this unit standard includes but is not limited to the Health and Safety at Work Act 2015.
- 2 Definitions
  - Initial production run* refers to a mould being run continuously for the first time to produce commercially acceptable product.
  - Optimise* – achieve the maximum output a machine can maintain while remaining stable and producing product to a consistent quality specification.
  - Simple extrusion blow moulds* may have the following features – central neck, single cavity, simple deflash, striker plates. A simple mould also includes blow pin, extrusion pin and die, and stripper.
  - Trial* – the testing and evaluation of either a new mould, or a process using a mould for which there is neither prior knowledge nor production set-up information available.
  - Workplace procedures* – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 All evidence requirements must be performed in accordance with workplace procedures.

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## Outcomes and evidence requirements

### Outcome 1

Control a production run for the extrusion blow moulding process using a simple extrusion blow mould.

#### Evidence requirements

1.1 Controls are monitored and adjusted to optimise production and quality.

Range controls include – parison programming, accumulator die head, neck and tail deflashing, parison air inflation; evidence is required for one type.

1.2 Common machine malfunctions are identified, corrected and reported.

Range common machine malfunctions examples are – high melt temperatures, drive belt slippage, high hydraulic oil temperatures, extruder screw surging, leaking die head clamp or adaptor, feed throat bridging, barrel or die head temperatures inconsistent with set-points; evidence is required for one malfunction, and knowledge of two other malfunctions.

### Outcome 2

Trial a simple extrusion blow mould in a specified extrusion blow moulding machine.

#### Evidence requirements

2.1 Mould and machine trial preparations are carried out.

2.2 The mould is fitted and pre-start procedures are carried out.

2.3 Initial machine conditions are set according to product design, material type, mould construction and the type of die head being used.

2.4 Trial procedures are carried out and adjustments are made to achieve product quality and productivity.

2.5 Trial results are recorded.

### Outcome 3

Start up the moulding process for an initial production run of the trialled mould.

#### Evidence requirements

3.1 The machine is put into production, monitored to maintain job specification and adjusted to optimise the process and product.

## 3.2 Running adjustments are made and recorded.

<b>Planned review date</b>	31 December 2021
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	28 April 1993	31 December 2014
Revision	2	13 February 1997	31 December 2014
Review	3	23 January 1998	31 December 2014
Review	4	24 August 2006	31 December 2014
Review	5	21 March 2013	31 December 2019
Review	6	15 September 2016	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

**Comments on this unit standard**

Please contact Competenz [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.